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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/796,035

03/10/2004

Yoshihiro Maesaki

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10/20/2004

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EXAMINER

TANG, MINH NHUT

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,035

Applicant(s)

MAESAKI ET AL.

Examiner

Minh N. Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/21/04; 3/10/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on June 21, 2004 and March 10, 2004 are considered by the examiner.

It is noted that the references listed in the IDS filed on March 10, 2004 are crossed out because they are identical (except for the typo error (i.e., 2 instead of 5) of the first reference) to the references listed in the IDS filed on June 21, 2004.

Drawings

3. Figures 5 and 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the control signal",

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"the clock from a control signal" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "the waveform shaping circuit shapes a control signal", "the clock from a control signal", "the control signal".
6. The disclosure is objected to because of the following informalities:

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a/ on page 3, line 22, "Fig. 1a and 1b" should be -- Figs. 1a and 1b --.

b/ on page 4, lines 28 and 29, "generator 3" should be -- generator 1 --.

c/ on page 5, line 8, "signal s" should be -- signals --.

Appropriate correction is required.

7. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

8. Claims 2 and 3 are objected to because of the following informalities:

a/ in claim 2, lines 4-5, "wherein the frequency of the signal" should be -- wherein a frequency of a signal --.

b/ in claim 3, lines 6-7, "wherein the frequency of the signal" should be -- wherein the frequency of the signal output from the signal generator --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakata et al. (U.S.P. 5,825,193).

As to claim 1, Nakata et al. disclose, in Fig. 1, a dynamic burn-in method for a semiconductor device (11), comprising the steps of: generating a determined signal

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(i.e., an external signal applied at the input terminal 15); increasing the frequency of the determined signal (see column 4, lines 32-38); and providing the signal having the increased frequency (see column 4, lines 32-38) to the semiconductor device (11).

As to claim 2, Nakata et al. disclose, in Fig. 1, a dynamic burn-in apparatus for a semiconductor device (11), comprising: a signal generator (i.e., a device for outputting an external signal applied at the external input terminal 15, hereinafter generator); and a frequency converter (13); wherein a frequency (i.e., 12.5 MHz) of a signal output (i.e., external signal) from the signal generator (generator) is increased (see column 4, lines 32-38) by the frequency converter (13), and the signal having the increased frequency (i.e., 100 MHz) is provided to the semiconductor device (11).

As to claim 3, Nakata et al. disclose, in Fig. 1, a dynamic burn-in apparatus for a semiconductor device (11), wherein a signal output from a signal generator (i.e., a device for outputting an external signal applied at the external input terminal 15, hereinafter generator) is provided to a semiconductor device to be tested (11) in the burn-in tank (not shown), comprising: a converter (13) that is arranged at the output of the signal generator (generator), wherein the frequency (i.e., 12.5 MHz) of the signal output (i.e., external signal) from the signal generator (generator) is increased (see column 4, lines 32-38) by the converter (13) and the signal output (i.e., reference signal) from the converter (13) is provided to the semiconductor device (11).

Allowable Subject Matter

11. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 4 recites, inter alia, the converter comprises a synchronous oscillator and a waveform shaping circuit, wherein the synchronous oscillator is synchronized with a clock output from the signal generator and generates a clock having higher frequency than that of the clock output from the signal generator, and the waveform shaping circuit shapes a control signal, a data signal and an address signal that have the width corresponding the clock from a control signal, a data signal and an address signal output from the synchronous oscillator, wherein the clock output from the synchronous oscillator and the control signal, the data signal and the address signal output from the waveform shaping circuit are provided to the semiconductor device.

The art of record does not disclose the above limitations, nor would it be obvious to modify the art of record so as to include the above limitations.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Nakata et al.	6,518,779	Probe Card.
Leung, Jr.	5,798,653	Burn-In System For Reliable Integrated Circuit Manufacturing.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh N. Tang whose telephone number is (571) 272-1971. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on (571) 272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Minh N. Tang
Primary Examiner
Art Unit 2829

10/14/04